

What is claimed is:

1. A capacitor discharge ignition device comprising:  
a capacitor that is charged by a power source and stores charge to produce ignition energy;

ignition coils that receive charge released from the capacitor on a primary side and generate a high voltage on a secondary side;

a switching element for causing the capacitor to release the charge stored therein to the ignition coils;

ignition timing control means that receives a signal corresponding to a crank angle of an internal combustion engine and supplies an ignition signal to the switching element; and

circuit abnormality detecting means that receives a signal from the ignition timing control means, sets a capacitor voltage measurement time, and judges for a circuit abnormality on the basis of a voltage of the capacitor measured at the capacitor voltage measurement time.

2. The capacitor discharge ignition device according to claim 1, wherein the circuit abnormality detecting means judges for a circuit abnormality by comparing the measured voltage of the capacitor with a preset judgment reference voltage.

3. The capacitor discharge ignition device according to claim 1, wherein judgment reference voltage is determined as corresponding to a rotation speed of the internal combustion engine.

4. The capacitor discharge ignition device according to claims 1, wherein the circuit abnormality detecting means measures a voltage of the capacitor at a prescribed time that is after the release of the charge from the capacitor to the ignition coils.

5. The capacitor discharge ignition device according to claims 1, wherein the circuit abnormality detecting means measures a voltage of the capacitor at a prescribed time that is before the release of the charge from the capacitor to the ignition coils.

6. The capacitor discharge ignition device according to claims 1, wherein the circuit abnormality detecting means receives a signal corresponding to the crank angle of the internal combustion engine, and measures a voltage of the capacitor upon receiving a pulse of the signal corresponding to the crank angle.